## WHAT IS CLAIMED IS:

- 1. A process for the production of an aromatic carbonate comprising
- 5 (i) tempering an aromatic hydroxy compound of formula (II) R-O-H (II)

wherein R represents an aromatic group, for a period t2 at an average temperature T2 in a device by bringing it together with an amount B1 of component d) and an amount C1 of component e), to produce an activated aromatic hydroxy compound wherein component d) is at least one compound selected from the group consisting of the compounds of Ru, Os, Rh, Ir, Ni, Pd and of Pt, and wherein component e) is at least one compound selected from the group consisting of the compounds of Sc, Y, La, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Fe, Ni, Co, Cu, Ag, Au, Zn, Cd, Hg, Ga, In, Tl, Ge, Sn, Sb, Bi and Pb, and

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- (ii) reacting in a reaction apparatus for a time t1 and at an average temperature T1 the activated aromatic hydroxy compound with carbon monoxide and oxygen in the presence of a catalyst system comprising an amount B2 of component (d) and an amount C2 of component (e) to produce an aromatic carbonate said t2 being less than 50% of t1 and said T2 being at least 15 °C below said T1.
- 2. The process according to Claim 1 wherein the amount B1 is 50 to 100 % of the total weight of B1 and B2 and the amount C1 is 10 to 100 % of the total weight of C1 and C2.
- 3. The process according to Claim 1 wherein the reacting in a reaction apparatus takes place in the presence of a solvent.
- 4. The process according to Claim 1 wherein the catalyst system additionally contains at least one component selected from the group consisting of bromides, bases and solvents.

- 5. The process according to Claim 1 wherein t2 is less than 35% of t1.
- 6. The process according to Claim 1 wherein T2 is at least 25 °C below T1.

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- 7. The process according to Claim 1 wherein tempering is carried out at a constant temperature T2.
- 8. The process according to Claim 1 wherein tempering is carried out at a temperature-time profile with a monotonic positive gradient.
  - 9. The process according to Claim 1 wherein the temperature of the tempered aromatic compound at the end of (i) differs from the temperature of the tempered aromatic compound at the start of (ii) by less than 5 °C.

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- 10. The process according to Claim 1 wherein the aromatic carbonate is diphenyl carbonate.
- 11. The process according to Claim 1 wherein the process is carried out continuously.
  - 12. The process according to claim 11, wherein the mass stream that flows through the second device is less than 75% of the mass stream that flows through the reaction apparatus.

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